

## 2006 National Institute of Justice DNA Grantees Meeting

### Presenter Biographies

**Marc Allard** is currently the Louis Weintraub Associate Professor of Biology (and Genetics) at The George Washington University. He also has an appointment to the Visiting Scientists Program at the Federal Bureau of Investigation, Counterterrorism and Forensic Science Research Unit (CTFSRU), administered by the Research Participation Program of the Oak Ridge Institute for Science and Education, through an interagency agreement between the U.S. Department of Energy and the FBI-CTFSRU. From 2000 to the present, Dr. Allard has been collaborating with the U.S. Department of Justice, FBI, FBI Academy —CTFSRU in Quantico, Virginia, and the U.S. Department of Energy Research Participation Program, working on DNA identification of humans, SNP analysis, and database structure. Along with his forensic interests, Dr. Allard maintains his own laboratory at The George Washington University, Department of Biological Sciences, where he and his students study molecular systematics and evolution, conservation genetics, and forensic sciences.

From 1990 to 1994, Dr. Allard held three different postdoctoral positions. From 1990 to 1992, he conducted analyses on the molecular systematics and evolution of mammals at the University of Florida (Gainesville, Florida). This also included several smaller projects on the conservation genetics of several endangered vertebrates. From 1992 to 1993, he was a postdoctoral fellow in the Department of Internal-Medicine and Human Genetics, University of Michigan, Human Genome Center (Ann Arbor, Michigan) and collaborated with the UpJohn Co. This research assisted in the discovery of Huntington's disease gene. From 1993 to 1994, he was a postdoctoral fellow at the University of Cincinnati (Cincinnati, Ohio) studying the molecular systematics and evolution of birds. In the fall of 1994, he was hired as the Louis Weintraub Assistant Professor of Biology at The George Washington University and was later tenured in 2001 (Washington D.C.).

Dr. Allard's forensic research began in the summer of 1999 as a Visiting Research Scientist at the American Registry of Pathology, Armed Forces Institute of Pathology, and Armed Forces DNA Identification Laboratory. He consulted on databases for the U.S. Department of Defense DNA Registry (Rockville, Maryland). He received his Ph.D. in Biology in 1990 from Harvard University (Cambridge, Massachusetts).

**Jack Ballantyne** is an Associate Professor of Chemistry at the University of Central Florida and the Associate Director for Research at the National Center for Forensic Science in Orlando, Florida. His current duties include teaching and conducting research in forensic molecular genetics. He teaches a variety of forensic biology courses to baccalaureate and Master's level students in the Forensic Science Program and nucleic acid biochemistry to Ph.D. students in the Biomolecular Sciences Program. Prior to entering academia, Dr. Ballantyne was a casework forensic scientist in Scotland, Hong Kong, and New York, where he proffered expert testimony in the criminal courts of these jurisdictions. He was the full-time DNA technical leader in Suffolk County, New York and since then has served as a part-time DNA consultant and technical leader for Mississippi and Delaware, the city of Dallas, and Sedgwick County, Kansas. Dr. Ballantyne is Chair of the New York State DNA Sub-Committee, a regular visiting

guest at the Scientific Working Group on DNA Analysis Methods (SWGDM), and a member of the U.S. Department of Defense Quality Assurance Oversight Committee. He was a member of the World Trade Center Kinship and Data Analysis Panel (KADAP). He possesses a B.Sc. (with Honours) in Biochemistry from the University of Glasgow, Scotland; an M.Sc. in Forensic Science from the University of Strathclyde, Scotland; and a Ph.D. in Genetics from the State University of New York at Stony Brook.

**Joan Bienvenue** is a fifth year doctoral student in chemistry at the University of Virginia, in the laboratory of Dr. James Landers. While pursuing her Master's degree, she held a position in research at Bayer Pharmaceuticals, West Haven, Connecticut, working in drug metabolism and pharmacokinetic analysis and cancer research. Following her completion of her degree and an internship at the New Hampshire State Police Crime Laboratory, she joined the Landers laboratory, where her research has focused on the development of microfluidic devices for genetic analysis. Specifically, her research has centered on DNA extraction in microfluidic systems and integration of sample processing for genetic analysis in microdevices. Her work in these areas has been published in the *Journal of Forensic Sciences* and the *Journal of Analytical Chemistry*. She received her B.S. in Chemistry, with honors, from Rivier College, Nashua, New Hampshire and went on to pursue her M.S. in Forensic Science at the University of New Haven, West Haven, Connecticut.

**Eric Buel** became the director of the Vermont Forensic Laboratory in 1998 and is a past board member for the American Society of Crime Laboratory Directors. He started working as an analyst for the Vermont Forensic Laboratory. In 1990, he established the DNA analysis program for Vermont and has been active in forensic DNA analysis on a national level. He has been a member of Technical Working Groups for DNA Analysis Methods and Crime Scene Investigation and is currently serving on the working group for forensic DNA research. He is on the editorial review board for the *Journal of Forensic Sciences*, has written a number of papers on subjects concerning drug and DNA analysis, and his laboratory is actively involved in federally funded research projects. He received a Bachelor's degree in Chemistry from the University of Delaware and a Ph.D. in Biochemistry from the University of Missouri at Kansas City in 1979.

**John M. Butler** leads the Human Identity Project Team within the National Institute of Standards and Technology's (NIST's) DNA Measurements Group. His project team's work is funded by the National Institute of Justice to develop and evaluate future technologies for forensic DNA typing. Dr. Butler first came to NIST in September 1995 on a National Research Council postdoctoral fellowship and spent most of his time building on STRBasean Internet database on short tandem repeat DNA markers used by forensic scientists worldwide. After a short tenure at a start-up company in Menlo Park, California, GeneTrace Systems, he returned to NIST in September 1999. Dr. Butler is a regular invited guest of the FBI's Scientific Working Group for DNA Analysis Methods (SWGDM), a guest editor for the *Journal of Forensic Sciences*, and serves on the Department of Defense Quality Assurance Oversight Committee for DNA Analysis. He also was part of the World Trade Center Kinship and Data Analysis Panel throughout 2002 and 2003 and helped develop new DNA analysis methods to aid identification of badly damaged remains from WTC victims after the terrorist attacks of September 11, 2001.

In July 2002, Dr. Butler received the Presidential Early Career Award for Scientists and Engineers from President George W. Bush in a White House ceremony. He is also the recipient of the bi-annual Scientific Prize of the International Society of Forensic Genetics, the only American honored thus far. Dr. Butler has written over 80 peer-reviewed articles and invited book chapters on the subject of DNA typing and authored *Forensic DNA Typing: Biology, Technology, and Genetics of STR Markers*, now in its second edition. He received his Ph.D. from the University of Virginia in 1995. His dissertation work on capillary electrophoresis of DNA was performed in the FBI Laboratory's Forensic Science Research Unit under the direction of Bruce McCord and Bruce Budowle.

**Thurston L. Bryant** is an Analyst contracted to the Investigative and Forensic Sciences Division, Office of Science and Technology, National Institute of Justice (NIJ), U.S. Department of Justice. He currently is responsible for providing program support in the administration of NIJ's Convicted Offender DNA Backlog Reduction Program (Outsourcing and In-House Analysis) and the DNA Capacity Enhancement Program. Mr. Bryant received his M.A. in Sociology (Criminology) and B.A. in Criminology/Psychology and Criminal Justice from Auburn University, Alabama.

**Nathaniel C. Cady** has worked, at Cornell University, to develop hand-held PCR based detection systems for a variety of pathogens, including *B. anthracis*, *S. typhimurium*, *L. monocytogenes* and *S. aureus*. He has also worked to develop a real-time PCR-based system for rapid, on-site analysis of forensic evidence. Although his formal training is in microbiology, Dr. Cady has worked extensively with micro-/nanofabrication technology including the development of microfluidic systems, quantum dot-based biosensors, and biosensor system design/fabrication. He received his Ph.D. from the Department of Microbiology at Cornell University in 2005.

**Thomas F. Callaghan** is Chief of the Federal Bureau of Investigation's CODIS Unit and Chairman of the National DNA Index System Procedures Board. Dr. Callaghan has over 20 years of DNA analysis experience. His undergraduate studies at Penn State involved gene regulation. Prior to joining the FBI, Dr. Callaghan was a Forensic Scientist with the Pennsylvania State Police DNA Unit, where he was involved in casework and setting up Pennsylvania's CODIS system. As Examiner in the FBI DNA Analysis Unit, he was involved in the DNA analysis of hundreds of homicide and rape cases. In 1999, Dr. Callaghan initiated the Federal Convicted Offender Program at the FBI Academy. He currently serves as the NDIS Custodian and Chairman of the SWGDAM CODIS Committee. Dr. Callaghan received his doctorate in Molecular Biology from Case Western Reserve University, where he worked on the molecular biology of viruses.

**Cassandra D. Calloway** is a co-investigator with Dr. Henry Erlich for an NIH-funded project to develop a rapid, immobilized probe assay for the detection of mitochondrial DNA variation in the coding region at Roche Molecular Systems. At RMS, she has been engaged in the research and development of the LINEAR ARRAY™ Mitochondrial DNA HVI/HVII Region-Sequence Typing Kit, which is now commercially available. In addition, she has helped guide mtDNA beta studies and collaborative projects with over 20 laboratories world wide. Her major interests include the analysis of polymorphisms and the characterization of heteroplasmy in the mitochondrial genome for human identification and disease susceptibility.

While at the University of Georgia, Ms. Calloway also conducted research to characterize heteroplasmy in the control region of mtDNA at the Georgia Bureau of Investigation and in collaboration with Roche Molecular Systems. She received her B.S. and M.S. degrees in Genetics at the University of Georgia. She is also currently working on her Ph.D. in Comparative Biochemistry in the laboratory of Dr. George Sensabaugh at the University of California, Berkeley.

**Heather J. Clawson** brings ten years of experience designing, conducting, and managing program and training evaluations, providing evaluation training and technical assistance, and using state-of-the-art statistical techniques, including proportional hazard modeling, logistic regression, and hierarchical linear modeling. Additionally, Dr. Clawson has developed and managed large databases, led survey and interview data collection efforts, and written well-received technical reports. Much of her work has been for the Department of Justice, including NIJ, the Office of Juvenile Justice and Delinquency Prevention, the Office of Justice Programs, and the Office for Victims of Crime. Dr. Clawson's areas of expertise include victim services, human trafficking, law enforcement response, and criminal and juvenile justice.

**Michael D. Coble** is currently the chief of the Research Section at the Armed Forces DNA Identification Laboratory (AFDIL) in Rockville, MD. His thesis focused on the identification of informative SNPs in the entire mitochondrial genome useful for increasing the forensic discrimination of common mtDNA types. The publication of this work was recently honored with the John Hill Brinton Award by the Armed Forces Institute of Pathology as the most outstanding peer-reviewed journal publication of 2005.

After completion of his Ph.D., Dr. Coble worked as a National Research Council Postdoctoral Fellow for the National Institute of Standards and Technology (NIST), Human Identity Project team, led by Dr. John Butler. At NIST, he developed a set of novel non-CODIS miniSTR markers useful for analyzing degraded nuclear DNA. Dr. Coble conducted his Ph.D. dissertation and research in mtDNA Genetics at the Armed Forces DNA Identification Laboratory (AFDIL) under the direction of Dr. Thomas Parsons. He received a B.S. degree in Biology from Appalachian State University (Boone, NC), an M.F.S. degree in Forensic Science and a Ph.D. in Genetics from The George Washington University (Washington, D.C.).

**Trisha L. Conti** joined the Vermont Forensic Laboratory as a Forensic Chemist in October of 2005. Prior to joining the Vermont Forensic Laboratory, her research involved the molecular mechanisms underlying arsenic-mediated decreases in cytochrome P450's. Specifically, Dr. Conti studied the role that low-dose arsenic exposure from drinking water has on CYP3A4, the major drug metabolizing enzyme in humans. Dr. Conti's work at the Vermont Forensic Laboratory entails performing research using specific mRNAs as an indicator of tissue and fluid origin through various real-time PCR applications. To date she has identified several genes that can be used to distinguish both blood and semen, either as trace amounts or in mixtures. During a search for a rapid and inexpensive RNA extraction method, Dr. Conti came across a published plant DNA/RNA extraction technique. She optimized this protocol for DNA extraction from biological samples and is in the process of validating it for blood and buccal cell samples for the purpose of obtaining STR profiles for CODIS. In the future, Dr. Conti plans to determine whether the new method can be further refined for simultaneous DNA and RNA extraction, as well as validating it for casework samples.

A native of Vermont, Dr. Conti received her undergraduate degree in Biomedical Technology from the University of Vermont in 2001 and her doctoral degree in Pharmacology and Toxicology from Dartmouth College in 2005.

**Tracey Dawson Cruz** worked as an Assistant Director at Fairfax Identity Laboratories, where she oversaw CODIS lab operations and helped to develop and implement high-throughput testing strategies for no-suspect casework samples. After a short stint as a Visiting Assistant Professor in the Department of Forensic Science at George Washington University, Dr. Dawson Cruz joined Virginia Commonwealth University in 2003 with joint appointments in the Departments of Forensic Science and Biology. There, she teaches courses in Forensic Molecular Biology, maintains a research laboratory, and serves as the Director of the Graduate program. Dr. Dawson Cruz is an active member of the IAI, ASCLD, AAFS, and MAAFS and serves as a guest reviewer for the *Journal of Forensic Science*. She has published articles related to forensic DNA analysis, engineering gene duplications/deletions in mice, and chemokine receptors in inflammatory disease as well as a chapter in *Molecular Diagnostics for the Clinical Laboratorian*, a book released in 2005 by Humana Press. Recently, Dr. Dawson Cruz's lab was awarded an NIH Forensic DNA R&D grant to study potential applications of whole genome amplification for analyses of severely compromised biological evidence samples. Dr. Dawson Cruz, a native of North Carolina, received Bachelor's Degrees in Microbiology and Zoology from North Carolina State University in Raleigh, N.C. From there, she went on to earn her Ph.D. in Cellular and Molecular Pathology at the University of North Carolina-Chapel Hill School of Medicine, where her dissertation work involved the generation of several genetically engineered "knock-out" mice for studying the role of chemokine receptors in inflammatory disease.

**Phillip B. Danielson** is an Associate Professor of Molecular Biology at the University of Denver. He teaches courses in Forensic Science, Infectious Human Disease, Immunology, and Molecular Biology. Prior to assuming his current faculty position, he received research training at the University of Tokyo's Department of Biochemistry and Biophysics, the University of Colorado at Boulder's Department of Molecular, Cellular, and Developmental Biology and the University of Denver's Department of Biological Sciences. Though his research program encompasses studies on the neuroendocrinology and molecular toxicology, his primary research focus is in the field of forensic genetics (particularly the analysis of mitochondrial DNA mixtures). Dr. Danielson's collaborators have included the Denver Police Department and the Colorado Bureau of Investigation. Together with the officials from the Denver Police Department, the Colorado District Attorneys Council and State Crime Laboratories, he has developed training programs for law enforcement professionals on the use of DNA evidence in criminal investigations. His work has been featured in academic and professional journals and as well as in the popular press, including the *Proceedings of the National Academy of Sciences*, *The Scientist* magazine, *USA Today* and *Law Enforcement Technology* magazine. At the invitation of the National Law Enforcement and Corrections Technology Center for the Rocky Mountain Region, Dr. Danielson has also developed a series of informational seminars for first responders on the real and perceived threats associated with potential acts of chemical / biological terrorism.

**Ronald W. DeBry** has been an NIH NRSA Postdoctoral Fellow, Florida State University, Chemistry, (between 1989-1992). He was the Sloan Foundation Postdoctoral Fellow at Florida State University in Biological Science from 1992 to 1994. He became a Postdoctoral Associate at Duke University Medical Center from 1995 to 1995. He served as Assistant Professor, University of Cincinnati, (Biological Sciences, 1996-2002) and as Associate Professor, University of Cincinnati, (Biological Sciences) from 2002 to the present. He has expertise in evolutionary biology, systematics theory, and molecular evolution. Dr. DeBry is Associate Editor of *Systematic Biology*. He earned the A.B. at University of California, Berkeley, in Biology, (1979); an M.S. in Systematics and Ecology, University of Kansas, 1982; and his Ph.D. in Zoology, Michigan State University, 1989.

**Barry Duceman** is the Director of Biological Sciences at the New York State Police Forensic Investigation Center in Albany. He is a past member of the FBI's Scientific Working Group on DNA Analysis Methods, the CODIS Design Review Board and the World Trade Center DNA Data Analysis Panel. Currently, he is a member of the National Institute of Justice's Expert System Test Bed Project Panel, the DNA Forensics Technical Working Group and the Hurricane Victim DNA Identification Group. He is an Adjunct Assistant Professor in the Department of Biological Sciences and an Adjunct Associate Professor in the Department of Biomedical Science at the State University of New York at Albany. Dr. Duceman was employed in 1990 by the New York State Police to implement and supervise a comprehensive forensic genetic identity testing program which has since grown to include more than 100 staff positions including 64 forensic scientists and various support personnel. At the Forensic Investigation Center, the biological science staff applies modern forensic DNA testing technology to a broad range of challenging evidence samples. In addition to forensic casework, the Biological Science Section includes the New York State DNA Databank and the on-site administration of the State's Combined DNA Index System (SDIS). Dr. Duceman earned a doctorate from the Pennsylvania State University and five years post-doctoral research experience in the Department of Human Genetics at Yale University.

**Arthur J. Eisenberg** received his Ph.D. in Molecular Biology from the State University of New York at Albany, USA in 1984. In 1984, he joined Actagen Corporation which later became Lifecodes Corporation and helped establish the first DNA Paternity and Forensic Laboratories in the world. Over the past 22 years, he has been responsible for the development of many of the systems and methodologies used in the field of DNA Identification Testing. He has been a member of the FBI's Scientific Working Group on DNA Analysis Methodologies for the past 16 years. In November of 1989, he joined the faculty at the University of North Texas Health Science Center. In 2004 he was promoted to Full Professor in the Department of Pathology and Anatomy, with a dual appointment in the Department of Cell Biology and Genetics. He is the Director of the DNA Identity Laboratory at the University of North Texas Health Science Center, Fort Worth, Texas. As Director, he has been responsible for developing a state-of-the-art reference laboratory utilizing DNA methodologies for the determination of paternity, forensic identification, and the diagnosis of other genetic diseases. Dr. Eisenberg has maintained an actively funded research program supported by the National Institute of Justice and the Federal Bureau of Investigation. In 1995 he was appointed by the Director of the FBI to the United States DNA Advisory Board (DAB) and in 1998 was named Chairman of the Board. Through a 2001 Texas legislative directive, the UNTHSC DNA Identity Laboratory was tasked

with the establishment of the Texas Missing Persons DNA Database (TMPDD). It was the first operational State Crime Laboratory in the country dedicated to the identification of human remains from victims of violent crimes. Since 2004, his lab has been funded by the United States Department of Justice, National Institute of Justice to provide the analysis of Unidentified Human Remains and Family Reference Samples for law enforcement agencies, medical examiners, and coroners throughout the United States.

Following the events of 9-11, Dr. Eisenberg was asked to serve on the Kinship and Data Analysis Panel established by the National Institute of Justice to assist the New York Medical Examiners Office in the Identification of the remains from the World Trade Center Disaster. In 2005 he was appointed to the United States Department of Justice Missing Persons Task Force created by the Deputy Attorney General. In 2005 he was also appointed by both the Governor of Virginia to serve on their states Scientific Advisory Board and the Attorney General of Texas to serve on his states Forensic Review Board. Dr. Eisenberg has served on numerous committees including those for the United States Department of Justice, Office of the Inspector General, American Association of Blood Banks Parentage Testing Standards Committee, and the College of American Pathologists Histocompatibility/Human Identity Testing Proficiency Committee. He has been an invited speaker and has lectured throughout the United States, Europe and South America.

**Terry W. Fenger** is Director of the Marshall University Forensic Science Center (MUFSC), which serves as the DNA testing laboratories for West Virginia CODIS, forensic casework and parentage testing. In addition, the Center offers a FEPAC accredited, Master's degree program in Forensic Science through Marshall University.

The MUFSC, which is a member of the NIJ Forensic Resource Network, also developed memoranda of understanding with crime laboratories outside of West Virginia to provide training and service relative to DNA testing. In addition, research projects in human identification through DNA, explosives and arson debris analysis, and microbial forensics are in process. The Center is also the site of the NIJ Expert Systems Test Bed and offers advanced DNA training to the forensic science community through the President's DNA Initiative.

Dr. Fenger attended graduate school at Southern Illinois University and conducted research in various areas of virology, including DNA analysis. Following the completion of his doctoral degree, he accepted a research position at the LSU Medical Center in molecular virology. He then accepted an academic position at Marshall University, where he remains heavily involved in education, research and administration.

**Debra A. Figarelli** currently serves as the National Forensic Science and Technology Center's (NFSTC's) DNA Technical Leader. Ms. Figarelli has worked at the U. S. Department of Justice Drug Enforcement Administration Southwest Laboratory, located near San Diego, California from 1987 to 1989. In 1989, she accepted a position with the Arizona Department of Public Safety, where she worked for a short time in toxicology. She continued with the Arizona DPS as the DNA Technical Manager for their statewide DNA program through 1998. In 1998, Ms. Figarelli accepted a position with the City of Phoenix Police Department Laboratory Services Bureau as their DNA Technical Manager, where she was instrumental in establishing their DNA program. In 2005, she began full time employment with the NFSTC. She is a DNA subject matter expert and is responsible for the design, review, and delivery of material under the NIJ President's DNA Initiative: Analyst Training. Ms. Figarelli also assists with the

development of DNA training programs and participates in compliance audits of DNA laboratories. She holds a Bachelor of Science degree from Northern Arizona University.

**David R. Foran** directs the Forensic Science Graduate Program at Michigan State University. The MSU program is the oldest in the country, and was one of the first to receive FEPAC accreditation. Dr. Foran worked previously at George Washington University, where he designed and directed the forensic biology track in the Department of Forensic Science. Three years ago, he moved to Michigan State, where he set up their forensic biology unit, and last year became director of the Forensic Science Program.

Dr. Foran's research, and that of his graduate students, covers a broad range of forensic biological issues, including: more accurate methods for entomological methods for determining PMI, DNA analysis of degraded skeletal remains, the effects of anthropological bone cleaning techniques on DNA, simplified methods for obtaining DNA from hair shafts, whole genome amplification, soil identification using microbes, characterization of mitochondrial and nuclear DNA degradation, simplified field methods for tissue collection and preservation, and wildlife forensics.

Dr. Foran received his Ph.D. from the University of Michigan in Molecular Genetics, was a post-doctoral fellow at McGill University in Montreal, and a research associate at the University of California at Santa Cruz.

**Michael F. Hammer** is a research scientist in the Division of Biotechnology at the University of Arizona, with joint appointments in Anthropology and Ecology and Evolutionary Biology. Since 1991, he has been Director of the Laboratory of Molecular Systematics and Evolution (LMSE), a molecular biology core facility that provides training and other DNA services at the University of Arizona. He spent six years as a post-doctoral fellow, first at Princeton University and then at Harvard University, where he began studies to develop the non-recombining portion of the human Y chromosome (NRY) as a genealogical tool. In the last decade, his research group and collaborators have published a series of articles reporting results of studies of NRY variation in human populations. These studies have demonstrated the utility of different classes of Y chromosome markers for both long-term evolutionary studies and studies of closely related human populations. This research has been supported by the National Institutes of Health and the National Science Foundation. In 1997, the National Institute of Justice awarded a grant to support a collaborative effort between the laboratories of Dr. Hammer and Dr. Susan Narveson at the Phoenix Police Department Laboratory Services Bureaus (PPDLBS) to develop a set of male-specific markers for use in forensic typing laboratories. The main goals were to (1) identify a set of polymorphic markers mapping on the NRY that are robust in forensic analysis, (2) develop detailed protocols for high throughput, fluorescence-based typing of these markers, and (3) establish a NRY database for U.S. population groups. Dr. Hammer received his Ph.D. in Genetics at the University of California, Berkeley in 1984.

**Dale Heideman** served, prior to accepting an IPA assignment to the National Institute of Justice in Washington, D. C., as the Deputy Director for the National Center for Forensic Science at the University of Central Florida in Orlando Florida. In this capacity, he was responsible for managing day-to-day operation of the Center and the development and oversight of the operating budget for the Center as well as developing various grant proposals for the Center. His duties at NIJ include the management of the Crime Laboratory Improvement, the

Coverdell, and the Convicted Offender DNA Backlog Reduction Programs. During his career with Florida Department of Law Enforcement, he served as a trace evidence analyst and in several management roles, including the Deputy Director for the Laboratory System. Upon his retirement from the State of Florida, he accepted the position as the Deputy Director of the National Center for Forensic Science in Orlando.

During his career, Mr. Heideman has been actively involved in the establishment, support, and monitoring of quality standards for forensic laboratories. He served on the Southern Association of Forensic Scientists' Committee that developed the organization's original training program document during the 1970s and served as an ASCLD/LAB Inspector and Team Captain. He also worked on several management review teams conducting assessments of laboratory operations throughout the United States. Mr. Heideman received his Bachelor of Science degree in Police Science from Michigan State University in 1968.

**Carol Henderson** is a recognized authority in scientific evidence, criminal law, and ethics. She has presented more than 180 lectures and workshops to thousands of forensic scientists, attorneys, judges and law enforcement personnel worldwide on the topics of scientific evidence, courtroom testimony, and professional responsibility. She has lectured in Argentina, Australia, Canada, Germany, Hong Kong, Japan, Scotland, Spain, and Taiwan. Professor Henderson has written three books and more than forty articles and book chapters on scientific evidence, law and ethics. She is an editor of the *Encyclopedia of Forensic and Legal Medicine* (2005) and serves on the editorial boards of the *Journal of Forensic Sciences*, the *Journal of Clinical Forensic Medicine* and the *Forensic Science, Medicine and Pathology Journal*. Professor Henderson has appeared in both the popular and professional media, including Fox National News, CBS "48 Hours" show, The John Walsh Show, the American Bar Association Journal and Lawyers Weekly USA. In 1999, she received the American Academy of Forensic Sciences' Jurisprudence Section's Harold A. Feder Award. She is Secretary of the American Academy of Forensic Sciences, has served as a Vice-President, on the Board of Directors, and as Chairman of the Jurisprudence Section. She is a member of the Forensic Specialties Accreditation Board and the International Association of Chiefs of Police Forensics Committee.

Professor Henderson began her legal career as an Assistant United States Attorney in Washington, D.C. She also practiced corporate litigation in a national law firm. Prior to receiving her J.D., she worked for the Federal Bureau of Prisons and the Department of Justice Criminal Division. She is presently Director of The National Clearinghouse for Science, Technology and the Law and a Visiting Professor at Stetson University College of Law. She received her J.D. degree from the National Law Center, George Washington University in 1980.

**Joseph V. Henderson** is Professor of Community and Family Medicine at Dartmouth Medical School and Director of Dartmouth's Interactive Media Laboratory (IML). Dr. Henderson has over 20 years experience as a multimedia developer and educator, creating large-scale interactive multimedia programs for health professionals and others. Many of the programs employ an e-learning model invented at IML, the Virtual Practicum. IML programs are noted for being thorough and comprehensive in content presentation, and for being carefully crafted and produced.

With funding through the Department of Homeland Security, the IML team has just completed a "Virtual Terrorism Response Academy" (VTRA) for first responders in law enforcement, fire service, and EMS. The Academy applies the Virtual Practicum design,

extended to include immersive, "first-person shooter," 3-D game elements. Two new projects are now underway: one, also funded by DHS, extends VTRA technologies and designs to create a "Virtual Medical Incident Management Institute" for senior health professionals. Another, funded by the Department of Justice under the President's DNA Initiative, will educate health professionals who must simultaneously deal with the clinical and forensic aspects of sexual assault.

**John C. Herr** is Professor of Cell Biology and Urology at the University of Virginia School of Medicine where he founded (in 1990) and directs the Center for Research in Contraceptive and Reproductive Health. He is a reproductive and developmental biologist with a focus on the discovery of novel genes and proteins that are expressed specifically in the sperm and in the egg. His laboratory studies proteins involved in gamete development (spermatogenesis and oogenesis), capacitation, and fertilization. Dr. Herr has an interest in translational research resulting from his basic studies. Objectives of this translational research include discovering sperm-specific markers useful for detecting sperm in sexual assault evidence. Dr. Herr has identified sperm proteins found only in sperm and in the testis and not in any other tissue in the human body. Several of these proteins are also specific for the sperm head, while others are specific for the sperm tail. Monoclonal antibodies directed to these proteins have been directly labeled with fluorescent dyes and mixed in a reagent called SpermPaint. SpermPaint is anticipated to improve the detection of sperm especially in cases where heads and tails have separated or where sperm are adherent to and masked by other cell types such as vaginal epithelium. Dr. Herr has received several awards, including the 2002 Alumni Award for Achievement from the University of Iowa Medical School, the Outstanding Scientist Award for the State of Virginia in the Year 2000, and the Henderson Inventor of the Year Award from the University of Virginia Patent Foundation in 1999. He is an inventor on 40 issued or pending patents.

**Chuck Heurich** worked for three years as a crime scene technician in Baltimore City where he processed over 1500 crime scenes. He spent 11 years with the Montgomery County Crime Lab as a Forensic Scientist in the Forensic Biology Unit and a Forensic Specialist 2 in the Forensic Services Section. He is currently a Program Manager with the National Institute of Justice where he manages the Solving Cold Cases with DNA and President's DNA Initiative Training portfolios. He received his Bachelor of Science in Biology from Slippery Rock University of Pennsylvania and his Master's of Forensic Science from the George Washington University.

**Jeff Hickey** is a Lockheed Martin contractor at the National Institute of Justice in the Investigative and Forensic Sciences Division. His primary responsibility is program support for the Grant Progress Assessment (GPA) program. Prior to joining NIJ, he worked for Orchid Cellmark in Germantown, Maryland for nine years. Mr. Hickey was a Forensic DNA Analyst for most of his time at Cellmark, performing forensic examinations and providing expert testimony. He was a Senior Research Associate for his last year and a half at Cellmark, mostly working in the areas of real time PCR and Y chromosome STRs. Mr. Hickey received his Master of Science in Biotechnology from the Johns Hopkins University and his Bachelor of Science in Biology from Loyola College in Maryland.

**Lisa Hurst** joined Smith Alling Lane in 1998 and has worked in governmental affairs for over ten years. In her work with the firm, she regularly consults with members of state legislatures, legislative staff, and state and federal agency officials on forensic DNA matters.

Lisa has been directly involved in much of the forensic DNA research and policy formulation conducted by the firm. She publishes a weekly report on national and international news and legislation affecting forensic DNA policies. The weekly report, which is distributed to over 6,000 recipients, is well-regarded by criminal justice professionals as a reliable and unique source of information for forensic DNA. She also plays a central role in managing research projects on national forensic DNA policy matters for the firm.

Ms. Hurst has prior experience working on Capitol Hill for a member of Congress. Her Federal background and more recent experience working with state legislative and regulatory bodies, gives her perspective on a wide variety of issues. A native of Kentucky, she received her undergraduate degree from Miami University of Ohio.

**John Paul Jones** is a Program Manager with the Investigative and Forensic Sciences Division of the Office of Science and Technology at the National Institute of Justice, U.S. Department of Justice. He has over nine years of scientific and management experience in the field of forensic DNA analysis. He is currently responsible for managing the Forensic Resource Network and various other forensic grants that focus on supporting state and local crime laboratories across the country. He previously was responsible for the administration of NIJ's Convicted Offender DNA Backlog Reduction and No Suspect Casework DNA Backlog Reduction Programs, which provided financial assistance to States for DNA analysis of backlogs of convicted offender DNA samples and no-suspect cases. In 1996, he joined Cellmark Diagnostics, a private forensic DNA identification company in Germantown, Maryland, where he has been responsible for managing forensic accounts and developing marketing plans. Mr. Jones received his B.S. degree in Biochemistry from Virginia Tech and an MBA from Carnegie Mellon University.

**Sree Kanthaswamy** is an Assistant Research Geneticist at the California National Primate Research Center, University of California, Davis (U.C. Davis). Dr. Kanthaswamy is the former director of the forensics and primate research units at the Veterinary Genetics Laboratory (VGL) also at UC Davis. His casework has included approximately 200 investigations using animal DNA evidence associated with crime or civil complaints including murder, animal abuse, cattle rustling and severe dog mauling. His casework has been provided to law agencies throughout the U.S. and internationally.

To further animal forensic science, Dr. Kanthaswamy provides educational opportunities for students at the university. He is also the Chair of the Animal Forensics Standing Committee at the International Society for Animal Genetics (ISAG).

Dr. Kanthaswamy's primate research contributes toward the genetic management of captive and wild primate populations. His projects include the U.C. Davis Primate Center rhesus macaque colony as well as other NIH-supported colonies in the U.S. and extant orangutan populations in Borneo. He earned the Ph.D. in Population Genetics, 2001, at University of California, Davis.

**Patricia A. Kashtan** is a Program Management Analyst contracted by Lockheed Martin Information Technologies to the Investigative and Forensic Science Division, National Institute of Justice, Office of Justice Programs within the U.S. Department of Justice since October of 2002. She is currently responsible at NIJ for the administration of the Forensic Resource Network and various other forensic grants that focus on supporting state and local crime laboratories across the country.

Prior to working at NIJ, she worked for ten years at Orchid Cellmark, a forensic DNA identification laboratory at their former location in Germantown, Maryland. She assisted with the financial and administrative management of forensic client accounts and the development of an “on site” Laboratory Information Management System.

**Giulia C. Kennedy** is Senior Director of Genomics Collaborations for Affymetrix, Inc. She completed a postdoctoral Fellowship in Pharmacology at Case Western Reserve University, and a postdoctoral Fellowship in Biochemistry and Biophysics at University of California, San Francisco. Prior to joining Affymetrix, Dr. Kennedy was a Group Leader for the Diabetes program at Millennium Pharmaceuticals and a Senior Scientist and Project Leader for the Colon and Breast Cancer Genomics group at Chiron. Her research interests have focused on the application of technology to genotyping studies, and she has authored over 50 peer-reviewed publications in the field. Dr. Kennedy has received support from the National Institute of Diabetes and Digestive and Kidney Diseases, Juvenile Diabetes Foundation, American Heart Association, World Health Organization, National Institute of Allergy and Infectious Diseases, and the National Institute of Justice. Dr. Kennedy completed her B.S. degree in Chemistry at Youngstown State University and her Ph.D. in Biochemistry at Case Western Reserve University.

**Kenneth K. Kidd** joined the Genetics faculty at Yale University School of Medicine in 1973, where he has remained and is currently Professor of Genetics and Psychiatry. At Yale he has pursued research in many areas of human genetics, including medical genetics (studies of neuropsychiatric disorders and simple Mendelian disorders), gene mapping (both physical and genetic), database design for modern genetic data, and a variety of molecular methodologies. More recently, his long-standing interest in human population genetics has been combined with his laboratory’s expertise in molecular technology to examine human genome diversity at the DNA level.

It was his unique combination of areas of expertise in human DNA polymorphisms that first got him involved in forensics and the courts. When RFLPs first began to be used in forensics in the mid 1980s, Dr. Kidd was already a member of the International DNA Committee and was the person responsible for cataloging the newly discovered polymorphisms and assigning D numbers to them. His molecular lab was also active in discovery of new polymorphisms and especially in determining their frequencies in different human populations. His comments in testimony in the *Yee* case led to his laboratory’s unpublished data on South American Indians being introduced into the courts. The isolated Karitiana Indian tribe became famous in forensic circles.

During his career, Dr. Kidd has published 450 scientific articles on a broad range of subjects including population genetics, cancer and neuropsychiatric genetics, gene mapping, molecular methodology, and human diversity. He is certified as a Medical Geneticist by the American Board of Medical Genetics. He has served on several U.S. Government review and

advisory committees/panels and on several editorial boards and has helped organize several international conferences. He is a member of several professional societies and a Fellow of the American Association for the Advancement of Science. Dr. Kidd received his Ph.D. in Genetics from the University of Wisconsin in 1969. His early training included *Drosophila* genetics, classical immunogenetics, and population genetics. During his post-doctoral studies with Professor L.L. Cavalli-Sforza, he established his reputation in human population genetics.

**Margaret C. Kline** has worked at the National Institute of Standards and Technology (NIST) since 1985. She has been conducting inter-laboratory studies and working on various Standard Reference Materials. Ms. Kline worked in the DNA Human Identity projects from their beginning at NIST in 1989. Previously, she worked at the Frederick Cancer Research Facility for more than five years in the Fermentation Program, isolating and purifying candidate anti-tumor antibiotics from fermentation broths. She received an M.S. degree from the University of Maryland in 1979.

**Laurie E. Locascio** has been employed at the National Institute of Standards and Technology (NIST) since 1986. She is currently the Group Leader of the Microanalytical Metrology Group in the Analytical Chemistry Division within the Chemical Science and Technology Laboratory at NIST. She has published more than 75 scientific papers, and has four issued patents with four additional ones pending in the fields of microfluidics, biosensors and sensor/flow systems. Her current research efforts involve the design and application of microfluidic chemical systems, also known as lab-on-a-chip devices. This work focuses on the development of new methods for microfabrication and microsystems integration, development of fundamental methods for accurately measuring flow and temperature in microsystems, development of new methods for improved microchemical separations and detection, and the development of microscale methods to facilitate single molecule measurement and manipulation. Much of her earlier work involved the development of new methods for low-level detection of clinical and environmental analytes utilizing biological receptors for analyte recognition and employing both optical and electrochemical elements.

Dr. Locascio acts in many professionally recognized leadership roles: From 2000 to 2003, she served on the editorial advisory board for the Journal of Analytical Chemistry. She has been the Chair of the Gordon Research Conference on “Physics and Chemistry of Microfluidics.” From 2005 to currently, she serves as a member of the MicroTAS Steering Committee. Some of her honors and awards include: the U.S. Department of Commerce Certificate of Recognition; U.S. Department of Commerce Bronze Medal Award; and the National Institute of Standards and Technology Applied Research Award. She is currently the Chair-Elect of the Analytical Division of the American Chemical Society. Dr. Locascio received her B.Sc. in Chemistry from James Madison University, an M.Sc. in Bioengineering from the University of Utah, and a Ph.D. in Toxicology from the University of Maryland at Baltimore Medical School.

**Kesha Lowe** is a Program Assistant contracted by Lockheed Martin Information Technologies to the Investigative Forensic Science Division of the Office of Science and Technology at the National Institute of Justice, U.S. Department of Justice, since November of 2004. Ms. Lowe is currently responsible for the administration and monitoring of the Crime Lab Improvement Program.

**Richard A. Mathies** is Professor of Chemistry and Director of the Center for Analytical Biotechnology. Mathies' recent work in the area of biotechnology and the Human Genome Project has led to the development of new high-speed, high-throughput DNA analysis technologies such as capillary array electrophoresis and energy transfer fluorescent dye labels for DNA sequencing and analysis. He also pioneered the development of microfabricated capillary electrophoresis devices, capillary array electrophoresis microplates, and microfabricated integrated sample preparation and detection methods. He is author of over 300 publications and patents on photochemistry, photobiology, bioanalytical chemistry and genome analysis technology. He received his B.S. degree in Chemistry in 1968 at the University of Washington. He earned a Ph.D. in 1973 in Physical Chemistry at Cornell University. Following two years of postdoctoral study as a Helen Hay Whitney Postdoctoral Fellow at Yale, he moved to the Chemistry Department at the University of California, Berkeley (1976).

**Bruce R. McCord** is currently an Associate Professor of Analytical and Forensic Chemistry at Florida International University. He joined the faculty there in the fall of 2004. Prior to moving to Florida, Dr. McCord was the director of the Forensic Chemistry program at Ohio University. He also served for nine years as a researcher for the FBI's Forensic Science Research and Training Center in Quantico, Virginia. He is a current member of the editorial board of the *Journal of Capillary Electrophoresis*, Alpha Chi Sigma, and the American Academy of Forensic Sciences.

His present research interests involve the development of chromatographic methods in forensic chemistry. He is the author of over 40 peer reviewed scientific articles and 5 book chapters. His research has been supported by grants from the National Institute of Justice, TSWG, the J. Edgar Hoover Foundation and the National Science Foundation. Dr. McCord received a B.S. in Chemistry, with Honors, from the College of William and Mary in 1981, and a Ph. D. in Analytical Chemistry from the University of Wisconsin-Madison in 1986.

**Laura Mehrmanesh** got her Bachelor's degree in Physics from Bryn Mawr College in Bryn Mawr, Pennsylvania. She is currently an Electrical Engineering PhD candidate at Brown University. She works in the Laboratory of Emerging Technologies led by Professor Jimmy Xu at Brown, and is studying nanoelectronics, biology, physics, and nanofabrication. She, together with Dr. Jin Ho Kim and Ms. Avital Braiman, is attending the DNA grantee meeting as the representative of the Brown team that conducts research in DNA sequencing using nanotube and nanopore arrays and explores the development of technologies and pathways for the fabrication of DNA nanochips.

**Lee Mockensturm** is the Web Content Manager for both the National Institute of Justice Web site and DNA.gov-Web site of the Presidential Initiative Advancing Justice Through DNA Technology. Mr. Mockensturm has been with NIJ in many capacities since 1996. He is currently part of the Institute's Office of Science and Technology and works closely with the NIJ Communications Division.

**Scott Nagy** started working as a criminalist for the California Department of Justice in the Jan Bashinski DNA Lab in Richmond.

Dr. Nagy was born and raised in Edison, New Jersey. He received his B.S. in Environmental Sciences from the University of Massachusetts in 1993. In 2001, he earned his Ph. D. in Pharmacology and Toxicology from the University of California at Davis.

**Susan D. Narveson** is the Chief of the Investigative and Forensic Sciences Division of NIJ's Office of Science and Technology. Prior to accepting an assignment at NIJ, she served as the Laboratory Services Bureau Administrator for the Phoenix Police Department and was responsible for managing the operation of a full service crime laboratory. In 1981, Ms. Narveson accepted a position with the Arizona Department of Public Safety, where she worked for 17 years, and was named the Assistant Superintendent of the Scientific Analysis Section in 1997. In 1998 she accepted the position of Administrator of the Laboratory Services Bureau for the City of Phoenix Police Department.

In 1988, Ms. Narveson had the privilege of working with the FBI's first group of Visiting Scientists in the development of DNA analysis procedures and was instrumental in establishing DNA analysis capability for the State of Arizona and the City of Phoenix. She has been actively involved in the establishment, support, and monitoring of quality standards for forensic laboratories through her membership on/in a number of national boards, committees and organizations. Among these are the FBI Scientific Working Group on DNA Analysis Methods, the College of American Pathologists Forensic Identity Committee, and the FBI DNA Advisory Board. In addition, she has served as the chair of the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB), the DNA Proficiency Review Committee, as an ASCLD/LAB Inspector and Team Captain, and as the President of the American Society of Crime Laboratory Directors (2001-2002). She received her Bachelor of Science degree in Chemistry in 1975 from Arizona State University and began her career in forensics with the Phoenix Police Department in 1979.

**Mark Nelson** is the Grant Progress Assessment and DNA Audit Program Manager at NFSTC. He manages the NIJ-Forensic Resource Network program, which provides free DNA audits to the nation's DNA laboratories under NFSTC's Cooperative Agreement with NIJ. In 2005, the DNA Audit Program was expanded to include the Grant Progress Assessment (GPA) Program.

Mr. Nelson retired from the North Carolina State Bureau of Investigation after a 30-year career. He was the Special Agent in Charge of the Molecular Genetics Section of the Crime Laboratory for most of his career, and Special Agent In Charge of Special Projects and Grants for the last two years of his career in North Carolina.

Mr. Nelson has a long history in developing quality systems and assessing compliance of laboratories to quality systems. He was on the SWGDAM Quality Assurance Subcommittee from the time it started until 2000. He has been an Inspector and Team Captain for ASCLD/LAB and NFSTC, and is currently a Technical Assessor for Forensic Quality Systems ISO 17025 Accreditation Program, and a DNA and GPA Lead Auditor in the program he now manages.

**Janice A. Nicklas** has researched the molecular analysis of mutations, and she has a wide range of molecular genetics experience from hybridizing Southern blots through performing real-time PCR to sequencing DNA. She became a Research Assistant Professor of Medicine at the University of Vermont in 1986 and a Research Associate Professor of Medicine in 1993. She also directed the DNA Analysis Facility (automated DNA sequencing and real-time PCR) of the Vermont Cancer Center for six years and directed the Molecular Diagnostics Laboratory (microsatellites, SSCP, DNA sequencing) for the University Hospital for two years. She was a Fellow at the Harvard Genetics Training Program in 1996-1997 and 2000-2001, and she has board certification in Clinical Molecular Genetics from the American Board of Medical Genetics. Dr. Nicklas has worked at the Vermont Forensic Laboratory since November 2001 performing research into better methods to quantitate human DNA, using molecular beacons, LUX, TaqMan and SYBR Green. Dr. Nicklas performed the genotyping analysis for a recent phase I study of butadiene exposure and is currently performing genotyping analysis for phase II of this study. She has designed the primers and probes for the current genotyping analysis, will validate the assays and will perform all the interpretations of the results. She received her B.S. in Biology from the California Institute of Technology in 1975 and a Ph.D. in the field of Genetics from Princeton University in 1981. She completed three postdoctoral fellowships in the fields of genetics and immunology at Tufts Medical School, the University of Minnesota and the University of Vermont.

**Ryan Parr** served as Co-Director of the Paleo-DNA Lab at Lakehead University in Thunder Bay, Ontario, Canada. This project involved mitochondrial analyses of Kellis 2, a large cemetery in proximity to Kellis, a Roman-Byzantine site in the Dakhleh Oasis in Egypt. Currently, Dr. Parr is the Vice President of Research and Development at Genesis Genomics, a biotechnology company which uses the somatic mutation pattern of mitochondrial DNA as a “biosensor” for the early detection of cancer. He received his Ph.D. in Biological Anthropology from the University of Utah in 1998.

**Daniel A. Peterson** is an Associate Professor of Neuroscience at Rosalind Franklin University of Medicine and Science in Chicago. He has been a Staff Scientist at the Salk Institute in La Jolla, California, before moving to Chicago. The main research focus of Peterson’s lab is the regulation of neural stem cells in the adult brain and their use in brain repair. He received his Ph.D. in Anatomy from the University of Otago, New Zealand and did post-doctoral training at the University of California, San Diego.

**Rhonda Roby** is a Technical Consultant for the National Institute of Justice’s Experts Systems Testbed (NEST) Project. She received her Masters in Public Health in forensic biochemistry and behavioral and environmental health sciences from the University of California at Berkeley. She served as the Technical Leader of the Mitochondrial DNA (mtDNA) Section with the Department of Defense DNA Registry, Armed Forces DNA Identification Laboratory and was the Forensic Manager with Applied Biosystems. Ms. Roby has worked on numerous homicide and rape investigations, identified victims from mass disasters and soldiers from war conflict, instructed crime laboratories worldwide, designed forensic chemistry kits and software, and conducted numerous validation studies.

**John Roman** is a senior research associate in the Justice Policy Center at the Urban Institute where his research focuses on evaluations of innovative crime control policies and programs. Mr. Roman is directing a cost-effectiveness study of the use of DNA in burglary investigations, a national study of the demand for interventions for drug-involved arrestees, the evaluation of the Reclaiming Futures initiative and is the manager of the national evaluation of adult drug courts, and is currently conducting cost-benefit analyses of the national Re-entry Evaluation; the Alaska Wellness (DWI) Court; and reentry programs in Chattanooga, Chicago and Reno. Mr. Roman is the co-editor of *Juvenile Drug Courts and Teen Substance Abuse*, and his recent work has appeared in the *Journal of Contemporary Criminal Justice*, the *Journal of Drug Issues* and the *Journal of Law and Policy*.

**Glenn R. Schmitt** served as the Chief Counsel to the Subcommittee on Crime of the House Committee on the Judiciary prior to joining NIJ. In that capacity, Mr. Schmitt helped draft a number of significant pieces of legislation that have become law, including the 1996 anti-terrorism bill, the Economic Espionage Act of 1996, and DNA Backlog Elimination Act of 2000, and the Military Extraterritorial Jurisdiction Act of 2000. He was also the principal editor and one of the authors of the 1995 Congressional Report on the Federal government's use of force against the Branch Davidians in Waco, Texas. He served on the Judiciary Committee staff from 1994 to 2001.

From 1986 to 1992, Mr. Schmitt was associated with the Cleveland and Washington offices of Thompson, Hine and Flory, a 400-lawyer firm headquartered in Cleveland, Ohio, where his practice focused on commercial litigation, with a particular emphasis on business bankruptcy litigation, and commercial finance transactions. Mr. Schmitt is a reserve officer in the Judge Advocate General's Corps of the United States Army. In October 2004, he was called to active duty for one year in support of Operation Iraqi Freedom, spending most of that time in Iraq.

Mr. Schmitt graduated *magna cum laude* from Indiana State University in 1983 and received his law degree in 1986 from the University of Notre Dame Law School, where he was executive editor of the *Journal of Legislation*. He also holds a Master of Public Policy degree from The John F. Kennedy School of Government at Harvard University.

**Sindey Schueler** has been involved with forensics for a long time. She is the supervisor of Biology for the Kansas Bureau of Investigation. Ms. Schueler oversees DNA testing for both casework and the offender database. She provided testimony on DNA testing in over 150 cases, including several *Frye* Hearings. Ms. Schueler has been part of CODIS software evaluations and has worked on several national validation studies. She is a member of the Scientific Working Group on DNA Analysis Methods (SWGDM) and an Inspector for ASCLD-LAB.

**Linda D. Strausbaugh** is Professor of Genetics and Genomics in the Department of Molecular and Cell Biology, and Director of University of Connecticut's Center for Applied Genetics and Technology, a state-of-the-art genotyping facility that supports research, education, and outreach. Her current research interests focus on the structure and evolution of tandem repeats and forensic applications of DNA science. Over the past 25 years, she has had continuous funding and publication, and was elected secretary for the international Society for Molecular Biology and Evolution. She is currently secretary for the American Genetics Association. Under NIJ sponsorship, projects conducted in partnership with the Connecticut

State Forensic Sciences Laboratory include: creation of a Connecticut database for mitochondrial and Y chromosome markers, development of multiplex STR markers for plants, and exploration of biota DNA profiles to augment the use of soil as associative evidence. She is the lead investigator on collaboration with Affymetrix Corporation to develop fast and sensitive new methods for forensic typing based on microarray resequencing of mtDNA. She is also interested in the genetic control of the major classes of fingerprint patterns.

Dr. Strausbaugh is recognized nationally as an innovator in education; she conceived of and directs the University's new Professional Science Master's program in Applied Genomics which includes a forensic genetics track. Graduates have extensive experience in forensic DNA typing, and have made valuable contributions to crime labs, both as interns and employees. This program and its forensic connection were featured in several sessions of the recent national conference sponsored by the Commission on Professionals in Science and Technology. Dr. Strausbaugh was a finalist for the 2005 Connecticut Women of Innovation award and is a nominee for the 2006 Connecticut Quality Improvement Award. She earned the B.S. with honors, *summa cum laude*, at Wright State University (1972); her Ph.D. (Genetics) from Wesleyan University in 1977; and did post-doctoral research at Johns Hopkins University, 1977-1979, as well as University of Pennsylvania, 1979-80.

**William J. Tilstone** has been, since 1996, with the National Forensic Science Technology Center (NFSTC), a not-for-profit company incorporated by the American Society of Crime Laboratory Directors in 1995, and located in Largo, Florida. The NFSTC is mainly funded through a Cooperative Agreement with the National Institute of Justice, to provide support to state and local crime laboratories. Its activities include development and delivery of a range of training programs funded by the President's DNA Initiative.

Dr. Tilstone's career in forensic science has encompassed a wide range of activities over a 35-year period. His introduction to forensic science was at the Forensic Science Unit at the University of Strathclyde in Glasgow, Scotland, where he conducted research, taught and did case work in serology and toxicology. He was then appointed to be the first Director of the newly established State Forensic Science Laboratory in Adelaide, Australia, a position he held for 12 years before moving to Florida in 1996 to be Executive Director of the NFSTC. He now serves the NFSTC as its Deputy Executive Director, with responsibility for training programs.

Dr. Tilstone has maintained a strong interest in quality assurance in forensic science, and in the professional development of the subject and its practitioners.

**Mark D. Timken** is a Senior Criminalist at the California Department of Justice Jan Bashinski DNA Laboratory in Richmond, California, where he has worked for the past five years. He is a member of the Methods Development group and has worked on the development of automated methods for DNA extraction and PCR setup, as well as on the development of a variety of qPCR assays for forensic applications. Prior to working for the California Department of Justice, Dr. Timken was an Associate Professor of Chemistry for 12 years at Widener University in Chester, Pennsylvania. He earned a Ph.D. in Chemistry from the University of Illinois, Urbana-Champaign.

**Lois A. Tully** is the Deputy Chief of the Investigative and Forensic Sciences Division of NIJ's Office of Science and Technology, and the Program Manager of NIJ's Forensic DNA Research and Development Program. She was the recipient of an associate National Research

Council postdoctoral research position, which she performed at the National Institute of Standards and Technology (NIST) in the DNA Technologies Group. Prior to pursuing her Ph.D., Dr. Tully was employed by Cellmark Diagnostics as a staff molecular biologist and laboratory supervisor. She performed her doctoral dissertation research at the Armed Forces DNA Identification Laboratory. Dr. Tully received a B.S. in Medical Technology from Temple University, a Master of Science degree in Forensic Sciences from the George Washington University, and a Ph.D. in Human Genetics from the University of Maryland at Baltimore.

**Nick Viggiani** is a Lockheed Martin contractor at the National Institute of Justice in the Investigative and Forensic Sciences Division. He has been with NIJ for nearly four years. His primary responsibility is to provide program support for the Paul Coverdell Forensic Science Improvement Grants Program. Prior to joining NIJ, Mr. Viggiani served for eight years as a police officer with the Prince George's County Police Department in Maryland, where he was assigned as a detective to the District III Investigative Section. Before joining the Prince George's County police department, Mr. Viggiani was a legislative assistant in the Washington, D.C. office of United States Congressman Michael R. McNulty. Mr. Viggiani received a B.A. in Government and International Studies from the University of South Carolina in Columbia, South Carolina.

**Pat Wojtkiewicz** is the Director of the Shreveport Laboratory of the North Louisiana Crime Lab System and the Technical Leader of the DNA section. He is also currently Technical Leader of the DNA Unit at the Louisiana State Police Crime Lab and adjunct Assistant Professor of Biology at North western State University (Louisiana). He has been employed at the crime lab since 1977. His first position was in the serology department where he worked in body fluid identification, blood typing, and hair and fiber analysis. The DNA analysis unit has developed into a premier facility in the country, utilizing the latest techniques to analyze DNA evidence. At the North Louisiana Crime Lab, DNA analysts and student interns are involved in applied research to improve and develop methods in DNA analysis.

Dr. Wojtkiewicz has been involved in numerous workshops for training law enforcement officers and forensic DNA analysts. He returned to the North Louisiana Crime Lab in 1995, as Director of DNA Research and Training. Previously, in 1991, he had moved to South Louisiana to pursue a Ph.D. in Molecular and Cellular Biology at Tulane University, which he completed in 1999. While working on his dissertation, he was involved in forensic DNA analysis and training.

**Edwin W. Zedlewski** is the Acting Deputy Assistant Director for Research and Evaluation at the National Institute of Justice. His responsibility is shaping research and evaluation programs that result in better policy and practice nationwide. Since his arrival at the Institute in 1975, Dr. Zedlewski has served both as a researcher and an administrator on criminal justice policy, program evaluation, and organizational performance measurement. Beside his personal research on crime control policy, he has headed up NIJ's planning and management functions, managed NIJ's communication and program development efforts, and led NIJ's field test programs. Dr. Zedlewski has served on special consultant assignments to the Solicitor General of the United States, the President's Organized Crime Commission, the United States Sentencing Commission, and now, various White House Office of Science and Technology work groups on countering terrorism. Dr. Zedlewski is the author of numerous articles on program evaluation and crime control policy.